IN THE CLAIMS

Please cancel Claims 7-14, 21-28 and 33-34 without prejudice, amend Claims 1 and 16, and add new Claims 35-47 as follows:

1. (Currently amended) An electronics assembly comprising:

at least one electronics element, said at least one element having at least one circuit disposed thereon; and

a structure adapted to receive said at least one electronics element and retain said at least one element in a substantially fixed position;

said structure further comprising at least one backplane element adapted to electrically communicate with said at least one electronics element, said backplane element having a plurality of ports for ~~electrically~~ electrical communication with other electronic devices;

wherein said assembly is further adapted to accommodate a varying number of said electronics elements and respective ones of said backplane elements according to the configuration desired by the user.

2. (Original) The assembly of Claim 1, wherein said plurality of ports comprises at least one pigtail connector.

3. (Original) The assembly of Claim 1, wherein said one electronics element comprises a substrate having at least one circuit disposed nonlinearly on opposing sides.

4. (Original) The assembly of Claim 1, wherein said assembly is used in a DSL system, and said backplane element comprises:

a first port adapted to interface electrically with a POTS entity; and

a second port adapted to electrically interface with a DSLAM.

5. (Original) The assembly of Claim 1, wherein said one electronics element is configured to substantially separate a plurality of electrical circuits disposed thereon.

6. (Original) The assembly of Claim 1, wherein said at least one circuit comprises one or more DSL splitter circuits.

7. - 13. (Cancelled)

14. (Cancelled)

15. (Original) A backplane element, comprising:

a first multi-terminal connector disposed substantially juxtaposed to a second multi-terminal connector;

a connector cable, said cable electrically mated to a pigtail connector;

a third multi-terminal connector adapted to interface with terminals of an electronics insert element associated with said backplane element; and

an interface element disposed electrically between said third connector and said first, second, and pigtail connectors.

16. (Currently amended) The backplane element of Claim 15, wherein:

said first multi-terminal connector is adapted for use as a plain old telephone system (POTS) signal interface;

said second multi-terminal ~~connectors~~ connector is adapted for use as an outside plant interface; and

said pigtail connector is adapted to provide electrical communication with a DSL access multiplexer (DSLAM).

17. (Original) The backplane element of Claim 15, further comprising a plurality of capacitive elements disposed proximate said backplane element, said capacitive elements adapted to provide the high-pass filter functionality.

18. (Original) The backplane element of Claim 17, wherein said interface element comprises a substantially flexible substrate having a plurality of electrical traces formed thereon.

19. (Original) A backplane assembly, comprising:

a first electrical connector;

a first substrate adapted to receive at least part of said first connector;

a plurality of second electrical connectors;

a second substrate adapted to receive at least a portion of each of said second connectors;

structure components maintaining said first and second substrates in substantially fixed relationship; and

an electrical interface disposed substantially between said first and second substrates;

wherein said electrical interface provides electrical connection between said first connector and at least a portion of said second connectors.

20. (Original) The backplane assembly of Claim 19, wherein said electrical interface comprises a flexible substrate having conductive traces disposed along its surfaces and propagating between corresponding termination points for said first and second substrates.

21. - 30. (Cancelled)

31. (Original) A user-configurable electronics assembly comprising:

a plurality of electronics elements, said at least one assembly having at least one circuit disposed thereon; and

a modular structure having a plurality of separable components, each of said separable components adapted to receive at least one of said electronics elements and retain said at least one element in a substantially fixed position;

said components each further comprising at least one backplane element adapted to electrically communicate with said at least one electronics element, said backplane element having a plurality of ports for electrically communication with other electronic devices;

wherein said assembly is further adapted to accommodate a varying number of different configurations of said separable components and said elements disposed therein according to the configuration desired by the user.

32. (Previously presented) A cost-efficient, user-configurable electronics assembly for use in a Digital Subscriber Line Access Multiplexer (DSLAM), comprising:

a housing adapted to receive a plurality of insert elements, said insert elements each having at least one circuit disposed thereon and a plurality of edge terminals; and

at least one multi-connector backplane element for each of said inserts, said at least one backplane element having at least one corresponding edge connector, said at least one backplane element mated to a rear face of said housing;

wherein said at least one edge connector is mated with corresponding ones of said edge terminals; and

wherein said at least one multi-connector backplane element is scalable within said housing so that a user can select the number of insert elements and backplane elements for use therein, said selected number comprising only the number actually required by said user.

33. - 34. (Cancelled)

35. (New) An electronics assembly comprising:

a plurality of electronics elements each having at least one circuit disposed thereon; and

a structure adapted to receive said electronics elements and retain said elements in a substantially fixed position;

said structure further comprising a plurality of backplane elements adapted to electrically communicate with respective ones of said electronics elements, said backplane elements having a plurality of ports for electrical communication with other electronic devices;

wherein said assembly is further adapted to accommodate a varying number of said plurality of electronics elements and respective ones of said backplane elements according to a configuration desired by the user, said assembly being substantially user-configurable to achieve said desired configuration.

36. (New) The assembly of Claim 35, wherein said plurality of ports comprises at least one pigtail connector.

37. (New) The assembly of Claim 36, wherein at least a portion of said plurality of electronics elements comprise a substrate having at least one circuit disposed nonlinearly on opposing sides.

38. (New) The assembly of Claim 36, wherein said assembly is used in a DSL system, and said backplane elements each comprise:

a first port adapted to interface electrically with a POTS entity; and

a second port adapted to electrically interface with a DSLAM.

39. (New) The assembly of Claim 35, wherein said electronics elements are configured to substantially separate a plurality of electrical circuits disposed thereon.

40. (New) The assembly of Claim 35, wherein said at least one circuit comprises one or more DSL splitter circuits.

41. (New) A backplane element, comprising:

a first multi-terminal connector disposed substantially proximate to a second multi-terminal connector;

a connector cable, said cable electrically mated to a connector disposed on a distal end of said cable;

a third multi-terminal connector adapted to interface with terminals of an electronics insert element associated with said backplane element; and

an interface element disposed electrically between said third connector and said first, second, and cable-mounted connectors.

42. (New) The backplane element of Claim 41, wherein:

said first multi-terminal connector is adapted for use as a plain old telephone system (POTS) signal interface;

said second multi-terminal connector is adapted for use as an outside plant interface; and

said cable-mounted connector is adapted to provide electrical communication with a DSL access multiplexer (DSLAM).

43. (New) The backplane element of Claim 41, further comprising a plurality of capacitive elements disposed proximate said backplane element, said capacitive elements adapted to provide the high-pass filter functionality.

44. (New) The backplane element of Claim 43, wherein said interface element comprises a substantially flexible substrate having a plurality of electrical traces formed thereon.

45. (New) A backplane assembly, comprising:

a first electrical connector;

a first substrate adapted to be in electrical communication with said first connector;

a plurality of second electrical connectors;

a second substrate adapted to be in electrical communication with each of said second connectors;

structure components maintaining said first and second substrates in substantially fixed relationship; and

an electrical interface disposed substantially between said first and second substrates;

wherein said electrical interface provides electrical connection between said first connector and at least a portion of said second connectors.

46. (New) The backplane assembly of Claim 45, wherein said electrical interface comprises a flexible substrate having conductive traces disposed along its surfaces and propagating between corresponding termination points for said first and second substrates.

47. (New) A user-configurable electronics assembly comprising:

at least one electronics element, said at least one element having at least one circuit means disposed thereon; and

means for receiving said at least one electronics element and retain said at least one element in a substantially fixed position;

said means for receiving further comprising at least one backplane element adapted to electrically communicate with said at least one electronics element, said backplane element having a plurality of port means for electrical communication with other electronic devices;

wherein said assembly is further adapted to accommodate a varying number of said electronics elements and respective ones of said backplane elements according to one of a plurality of possible configurations desired by a user.